

Amendments to the Claims

Please amend the claims as follows:

1. (Currently amended) A method for providing point-to-multipoint services in a radio communication system, the method comprising:

performing Internet protocol header compression to form header compressed data;

in a point-to-point service, transmitting the header compressed data to one or more user equipment (UE) of the radio communication system;

~~one or more users of the radio communication system;~~

in a point-to-multipoint service, transmitting the header compressed data from a packet data convergence protocol (PDCP) entity to a plurality of UEs, wherein the header compressed data is transmitted over a common transport channel to each of the plurality of UEs of the radio communication system;

~~a plurality of the users of the radio communication system;~~

wherein the Internet protocol header compression is performed in ~~a packet data convergence protocol (PDCP)~~ a PDCP entity located within a serving radio network controller (SRNC) in the case of the point-to-point service and within a controlling radio network controller (CRNC) in the case of the point-to-multipoint service,

wherein in the case of the point-to-point service, the PDCP entity is located within a layer of a first network protocol stack that is located above a layer in which a radio link control (RLC) entity is located and above a layer in which a medium access control (MAC) entity is located;

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for ~~the users~~ the plurality of UEs of the radio communication system which individually receive the point-to-multipoint service from the CRNC in the case of the point-to-multipoint service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a second network protocol stack, which does not include a physical layer, that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

2. (Previously presented) The method of claim 1, wherein the point-to-point service is employed if a total number of users within a cell is below the threshold value.

3. (Previously presented) The method of claim 1, wherein the point-to-multipoint service is employed if a total number of users within a cell is at or above the threshold value.

4. (Previously presented) The method of claim 1, wherein the Internet protocol header compression is respectively performed for each type of MBMS service to be provided.

5. (Previously presented) The method of claim 1, wherein the point-to-point service is transmitting data from a single sending point to a single receiving point.

6. (Previously presented) The method of claim 5, wherein the point-to-point service is based upon a total number of users within a cell of the radio communication system.

7. (Canceled)

8. (Previously presented) The method of claim 6, wherein the transmitting by point-to-point manner is via a dedicated channel.

9. (Previously presented) The method of claim 1, wherein the point-to-multipoint service is transmitting data from a single sending point to multiple receiving points.

10. (Previously presented) The method of claim 9, wherein the point-to-multipoint service is based upon a total number of users within a cell of the radio communication system.

11. (Canceled)

12. (Canceled)

13. (Previously presented) The method of claim 1, wherein the header compression is performed at a central location for each type of MBMS service.

14-15. (Canceled)

16. (Previously presented) The method of claim 1, wherein the MBMS service is a service that is provided to a specified plurality of users.

17. (Canceled)

18. (Currently amended) A method of receiving data of a point-to-multipoint service in a radio communication system, the method comprising:

in a point-to-point service, receiving header compressed data from a radio communication system;

in a point-to-multipoint service, receiving the header compressed data from a packet data convergence protocol (PDCP) entity over a common transport channel;

~~from the radio communication system;~~

decompressing the received header compressed data to allow a user to access the point-to-multipoint service,

wherein the header compressed data is formed in a ~~packet data convergence protocol (PDCP)~~ PDCP entity located within a serving radio network controller (SRNC) in the case of the point-to-point service and within a controlling radio network controller (CRNC) in the case of the point-to-multipoint service,

wherein in the case of the point-to-point service, the PDCP entity is located within a layer of a first network protocol stack that is located above a layer in which a radio link control (RLC) entity is located and above a layer in which a medium access control (MAC) entity is located;

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for the users of the radio communication system which individually receive the point-to-multipoint service from the CRNC in the case of the point-to-multipoint service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a second network protocol stack, which does not include a physical layer, that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

19. (Previously presented) The method of claim 18, wherein the point-to-point service is receiving data by a single receiving point from a single sending point.

20. (Previously presented) The method of claim 19, wherein the point-to-point service is based upon a total number of users within a cell of the radio communication system.

21. (Previously presented) The method of claim 19, wherein the receiving by point-to-point service is via a dedicated channel.

22. (Previously presented) The method of claim 18, wherein the point-to-multipoint service is receiving data by multiple receiving points from a single sending point.

23. (Previously presented) The method of claim 22, wherein the point-to-multipoint service is based upon a total number of users within a cell of the radio communication system.

24. (Canceled)

25. (Previously presented) The method of claim 18, wherein the MBMS service is a service that is received by a specified plurality of users.

26-27. (Canceled)

28. (Currently amended) In a radio communication system for providing and receiving data of a point-to-multipoint service, a radio network controller comprising:
a header compressing portion that performs Internet protocol header compression to form header compressed data; and

a transmitter portion configured to:

in a point-to-point service, transmit the header compressed data to one or more user equipment (UE) of the radio communication system;

~~one or more users of the radio communication system;~~ and

in a point-to-multipoint service, transmit the header compressed data from a packet data convergence protocol (PDCP) entity to a plurality of UEs, wherein the header compressed data is transmitted over a common transport channel to each of the plurality of UEs of the radio communication system;

~~a plurality of the users of the radio communication system;~~

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for ~~the users~~ the plurality of UEs of the radio communication system which individually receive the point-to-multipoint service from the CRNC in the case of the point-to-multipoint service, and

wherein in the case of the point-to-point service, the PDCP entity is located within a layer of a first network protocol stack that is located above a layer in which a radio link control (RLC) entity is located and above a layer in which a medium access control (MAC) entity is located,
and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a second network protocol stack, which does not include a physical layer, that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

29. (Canceled)

30. (Previously presented) The radio network controller of claim 28, wherein the PDCP entity respectively performs header compression for each type of MBMS service to be provided.

31. (Canceled)

32. (Original) The radio network controller of claim 31, wherein the SRNC transmits via a dedicated transport channel.

33. (Canceled)

34. (Canceled)

35. (Currently amended) In a radio communication system for providing and receiving data of a point-to-multipoint service, a user equipment comprising:

a receiving portion configured to:

in a point-to-point service, receive header compressed data from a radio communication system;

in a point-to-multipoint service, receive the header compressed data from a packet data convergence protocol (PDCP) entity over a common transport channel;

~~over a common transport channel from the radio communication system;~~

a header decompressing portion operatively connected with the receiving portion, the header decompressing portion decompressing the received header compressed data to allow a user to access the point-to-multipoint service,

wherein the header compressed data is formed in a ~~packet data convergence protocol (PDCP)~~ PDCP entity located within a serving radio network controller (SRNC) in the case of the point-to-point service and within a controlling radio network controller (CRNC) in the case of the point-to-multipoint service,

wherein in the case of the point-to-point service, the PDCP entity is located within a layer of a first network protocol stack that is located above a layer in which a radio link control (RLC) entity is located and above a layer in which a medium access control (MAC) entity is located;

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for the users of the radio communication

system which individually receive the point-to-multipoint service from the CRNC in the case of the point-to-multipoint service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a second network protocol stack, which does not include a physical layer, that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

36-38. (Canceled)

39. (Previously presented) The user equipment of claim 35, wherein the receiving portion receives via a dedicated transport channel.

40. (Canceled)

41. (Canceled)

42. (Currently amended) A method for providing point-to-multipoint services in a radio communication system, the method comprising:

performing Internet protocol header compression to form header compressed data; and

in a point-to-point service, transmitting the header compressed data to one or more user equipment (UE) of the radio communication system;

~~one or more users of the radio communication system;~~

in a point-to-multipoint service, transmitting the header compressed data from a packet data convergence protocol (PDCP) entity to a plurality of UEs, wherein the header compressed data is transmitted over a common transport channel to each of the plurality of UEs of the radio communication system;

~~a plurality of the users of the radio communication system;~~

wherein the Internet protocol header compression is performed in a ~~packet data convergence protocol (PDCP)~~ PDCP entity located within a serving radio network controller (SRNC) in the case of the point-to-point service and within a controlling radio network controller (CRNC) in the case of the point-to-multipoint service,

wherein in the case of the point-to-point service, the PDCP entity is located within a layer of a first network protocol stack that is located above a layer in which a radio link control (RLC) entity is located and above a layer in which a medium access control (MAC) entity is located;

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for ~~the users~~ the plurality of UEs of the radio communication system which individually receive the point-to-multipoint service from the CRNC in the case of the point-to-multipoint service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a second network protocol stack, which does not include a physical layer, that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

43-50. (Canceled)

51. (Currently amended) A method of providing Internet protocol header information ~~to a plurality of terminals~~ in a wireless communication system, the method comprising:

performing header compression of Internet protocol header information to form compressed header data; and

in a point-to-point service, transmitting the header compressed data to one or more terminals of the wireless communication system;

~~one or more users of the radio communication system;~~

in a point-to-multipoint service, transmitting the header compressed data from a packet data convergence protocol (PDCP) entity to a plurality of terminals, wherein the header compressed data is transmitted over a common transport channel to each of the plurality of terminals of the wireless communication system;

~~a plurality of the users of the wireless communication system;~~

wherein the Internet protocol header compression is performed in a ~~packet data convergence protocol (PDCP)~~ PDCP entity located within a serving radio network controller (SRNC) in the case of the point-to-point service and within a controlling radio network controller (CRNC) in the case of the point-to-multipoint service,

wherein in the case of the point-to-point service, the PDCP entity is located within a layer of a first network protocol stack that is located above a layer in which a radio link control (RLC) entity is located and above a layer in which a medium access control (MAC) entity is located;

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for ~~the users~~ plurality of terminals of the wireless communication system which individually receive the point-to-multipoint service from the CRNC in case of the point-to-multipoint service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a second network protocol stack, which does not include a physical layer, that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

52. (Previously presented) The method of claim 51, wherein the header compression is performed once for the data transmitted to the plurality of terminals when the data is transmitted in the point-to-multipoint manner.

53. (Previously presented) The method of claim 51, wherein the compressed header data is provided to the plurality of terminals when the data is transmitted in the point-to-multipoint manner.

54. (Previously presented) The method of claim 51, wherein the threshold value is associated with a number of terminals.

55. (Canceled)

56. (Previously presented) The method of claim 51, wherein at least part of the Internet protocol header information is not compressed.

57-70. (Canceled)

71. (Currently amended) A wireless communication system for providing Internet protocol header information to a plurality of terminals, the wireless communication system comprising:

a header compression module adapted to receive Internet protocol header information from an internet protocol module and compress the Internet protocol header information to form compressed header data;

a transmitter module configured to:

in a point-to-point service, transmit the header compressed data to ~~one or more users~~ one or more terminals of the wireless communication system; and

in a point-to-multipoint service, transmit the header compressed data from a packet data convergence protocol (PDCP) entity to a plurality of terminals, wherein the header is transmitted over a common transport channel to each of the plurality of terminals of the wireless communication system;

~~a plurality of the users of the wireless communication system;~~

a receiving module configured to:

in a point-to-point service, receive header compressed data from the wireless communication system;

in a point-to-multipoint service, receive the header compressed data over a common transport channel from the wireless communication system;

wherein in the case of the point-to-point service, the PDCP entity is located within a layer of a first network protocol stack that is located above a layer in which a radio link control (RLC) entity is located and above a layer in which a medium access control (MAC) entity is located;

wherein a multimedia broadcast/multicast service (MBMS) is provided to the plurality of terminals and one PDCP entity exists in the CRNC for the ~~users~~ plurality of terminals of the wireless communication system which individually receive the point-to-multipoint service from the CRNC in the case of the point-to-multipoint service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a second network protocol stack, which does not include a physical layer, that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

72. (Previously presented) The wireless communication system of claim 71, wherein the compressed header data is provided to the plurality of terminals when the data is transmitted in a point-to-multipoint manner.

73. (Canceled)

74. (Previously presented) The wireless communication system of claim 71, wherein the compressed header data is transmitted in the point-to-point manner if the number of terminals is below the threshold value.

75. (Previously presented) The wireless communication system of claim 71, wherein the compressed header data is transmitted in the point-to-multipoint manner if the number of terminals is at or above the threshold value.

76-80. (Canceled)